CALIFORNIA ENERGY COMMISSION
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STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 97-AFC-2C
CALPINE CONSTRUCTION	)	Order No. 03-0611-01(k)
FINANCE COMPANY, L.P.'S	)	Order Approving Amendment To
SUTTER POWER PROJECT	)	Change Startup Emission Limits and
	)	Other Air Quality Conditions

Calpine Construction Finance Company, L.P. (Calpine) filed a petition to amend several Air Quality Conditions of Certification in the Commission Decision for the Sutter Power Project, subsequently renamed the Sutter Energy Center, Docket No. 97-AFC-2C. The request is to modify air quality emission and performance limits for startup and shutdown of the project's gas combustion turbines and make other technical changes

The Commission approves Calpine's' proposed changes in accordance with Title 20, Section 1769 (a) (3) of the California Code of Regulations.

COMMISSION FINDINGS

Based on staff's analysis, and adoption of the proposed modifications to the conditions of certification, the Commission concludes that the proposed changes will not result in any significant impacts to public health and safety or the environment. The Commission finds that:

1. There will be no new or additional unmitigated significant environmental impacts associated with the proposed changes.

2. The facility will remain in compliance with all applicable laws, ordinances, regulations, and standards, subject to the provisions of Public Resources code section 25525.

3. The changes will be beneficial to the public, applicant, or interveners. In this case, the amendment will benefit the applicant by modifying shutdown and startup requirements and simplifying operational emission limits to allow more efficient project operation without increasing any daily, quarterly, or annual emission limits.

4. There have been substantial changes in circumstances resulting in information that was not available to the parties prior to the Commission certification. These changes include new information regarding startup and shutdown performance of the project's combustion turbines.

ORDER

The Commission hereby adopts the following changes to the Sutter Power Project Decision:

Modified Air Quality Conditions (new language underlined, deletions struck out).

AQ-7 The facility shall not ~~discharge~~ emit into the atmosphere from any source whatsoever such quantities of air contaminants or other material~~s~~ which ~~that~~ cause injury, detriment,~~a public~~ nuisance, or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. ~~(District General ATC Permit Condition a).~~

Verification: As part of the ~~semiannual~~ quarterly Air Quality Reports (as required by AQ-4~~3~~0), the project owner shall include the date and time when any accidental release of air contaminants or other materials occur. The Air Quality Report shall also include the reason for the accidental release and measures taken to correct it.

AQ-8 The facility shall not emit into the atmosphere particulate emissions from any single source which exceed an opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor. ~~(District General ATC Permit Condition b).~~

Verification: As part of the ~~semiannual~~ quarterly Air Quality Reports (as required by AQ-4~~3~~0), the project owner shall include an explanation and the date, time, and duration of any violation of this Condition.

AQ-9 The facility shall not ~~discharge~~ emit into the atmosphere into the atmosphere from any source particulate matter in excess of 0.3 grains per cubic foot of gas at standard conditions. When the source involves a combustion process, the concentration must be calculated to 12 per cent carbon dioxide (CO 2). ~~(District General ATC Permit Condition c).~~

Verification: As part of the annual Air Quality Reports, the project owner shall submit to the District and CPM the annual source test and specify the level of particulate matter in grains per cubic foot of gas at standard conditions.

AQ-10 The facility shall not ~~discharge~~ emit into the atmosphere in any one hour from any source whatsoever fumes in total quantities in excess of the amounts as prescribed for and shown in District's Rule 3.3 Table of Allowable Rate of Emission Based on Process Weight Rate. ~~(District General ATC Permit Condition d).~~

Verification: As part of the ~~semiannual~~ quarterly Air Quality Reports (as required by AQ-4~~3~~0), the project owner shall indicate the date, time, and duration of any violation of this Condition.

AQ-11 The facility shall not discharge into the atmosphere, from any single source of emission whatsoever, any sulfur oxides in excess of 0.2 percent by volume (2,000 ppm) collectively calculated as sulfur dioxide (SO2). ~~(District General ATC Permit Condition e).~~

Verification: As part of the annual Air Quality Reports, the project owner shall submit to the District and CPM the annual source test and specify the level of sulfur oxides in percent by volume of gas at standard conditions.

AQ-12 Project owner shall not build, erect, install, or use any article, machine, equipment or other contrivance to conceal an emission which would otherwise constitute a violation of the Health and Safety Code of the State of California or of these Rules and Regulations.

Verification: Refer to AQ-33 through AQ-36. The project owner shall obtain approval from the District and the CPM prior to installing any new equipment that results in releasing air contaminants.

AQ-13 Project owner shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions shall include, but are not limited to: use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, construction of roadways, or the clearing of land; application of asphalt, oil, water, or suitable chemical on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts; other means approved by the Air Pollution Control Officer. ~~(FRAQMD General ATC Permit Condition g).~~

Verification: Refer to conditions AQ-1 through AQ-6.

AQ-14 In the case of shut-down or re-startup of air pollution control equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Air Pollution Control Officer at least twenty-four (24) hours prior to the planned shutdown. Such prior notice may include, but is not limited to, the following:

a. Identification of the specific equipment to be taken out of service as well as its location and permit number;

b. The expected length of time that the air pollution control equipment will be out of service;
c. The nature and quantity of emissions of air contaminants likely to occur during the shut-down period;
d. Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period.
e. The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.
~~(FRAQMD General ATC Permit Condition h).~~

Verification: As part of the ~~semiannual~~quarterly Air Quality Report (as required by AQ-4~~3~~0), the project owner shall include the dates of the equipment maintenance schedule including when each piece of equipment will be shut-down and when it will start-up.

AQ-15 In the event that any emission source, air pollution control equipment, or related facility breaks down in such a manner which may cause the emission of air contaminants in violation of any permit condition or applicable rules or regulations, other than as exempted herein, the licensee shall immediately notify the Air Pollution Control Officer of such failure or breakdown and subsequently provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. The Air Pollution Control Officer shall be notified when the condition causing the failure or breakdown has been corrected and the equipment is again in operation. ~~(FRAQMD General ATC Permit Condition i).~~

Verification: As part of the ~~semiannual~~ quarterly Air Quality Report (as required by AQ-4~~3~~0), the project owner shall include the date and duration of all equipment breakdowns, the cause of the breakdown, how it was corrected, and the measures that will be used to prevent the problem from occurring again.

AQ-16 Project owner shall submit an application for a Federal Operating Permit Title- V within 12 months after operational startup. ~~(FRAQMD General ATC Permit Condition j).~~

Verification: The project owner shall submit to the CPM a copy of the report at the time of filing with the District.

AQ-17 Project owner shall prepare and submit to the District a Toxic Hot Spots emission inventory by the first month of August following the first full calendar year of facility operational history. ~~(FRAQMD General ATC Permit Condition k).~~

Verification: ~~As part of the semiannual Air Quality Report (as required by AQ-43), t~~The project owner shall submit to the District and the CPM an inventory of all Toxic Hot Spots emissions.

AQ-18 A PSD permit must be obtained from the USEPA before commencement of facility operations. ~~(FRAQMD General ATC Permit Condition l).~~

Verification: At least 90 days prior to commencement of facility operations, the project owner shall submit to the CPM a copy of the PSD permit from the US EPA.

AQ-19 The equipment is subject to the federal NSPS codified at 40 CFR Part 60, Subparts A (General Provisions), Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Systems), and GG (Standards of Performance for Stationary Gas Turbines), Compliance with all applicable provisions of these regulations is required. ~~(FRAQMD General ATC Permit Condition m).~~

Verification: As part of the first ~~semi-annual~~quarterly Air Quality Report (as required by AQ-40), the project owner shall submit to the District and CPM a copy of a statement of compliance with the above federal applicable provisions and regulations.

AQ-20 Project owner shall meet the provisions of the Federal Acid Rain Program Title-IV by filing an Acid Rain permit 24 months before operational startup and by certifying CEMS for NOx and O2 within 90 days after operational startup. ~~(FRAQMD General ATC Permit Condition n).~~

Verification: The project owner shall provide the District and the CPM with a copy of the Acid Rain permit within 90 days after the permit is approved. Refer to AQ-33 for verification.

AQ-21 Project owner shall file an RMP with the Sutter County office in charge of the prevention of accidental releases prior to operational startup. ~~(FRAQMD General ATC Permit Condition o).~~

Verification: Refer to Hazardous Materials condition and verification HazMat-2.

AQ-22 The Authority To Construct (ATC) is not transferable from one location to another, or from one person to another without the written approval of the APCO. ~~(FRAQMD General ATC Permit Condition p).~~

Verification: At least sixty days in advance, the project owner shall notify, in writing, the District and the CPM of any intended transfer of ownership or location and obtain written approval prior to any transfer.

AQ-23 District personnel shall be allowed access to the plant site and pertinent records at all reasonable times for the purposes of inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission records

and otherwise conducting all necessary functions related to this permit. ~~(FRAQMD General ATC Permit Condition q).~~

Verification: During site inspection, the project owner/operator shall make the plant logs available to the District, California Air Resources Board (CARB), and Commission staff.

AQ-24 Project owner shall maintain a copy of all District permits at the facility. ~~(FRAQMD General ATC Permit Condition r).~~

Verification: During site inspection, the project owner/operator shall make all plant permits available to the District, California Air Resources Board (CARB), and Commission staff.

AQ-25 Combustion turbine exhaust stacks shall exhaust at a height of 145 feet and the maximum diameter shall not exceed 18 feet. ~~(FRAQMD General ATC Permit Condition s).~~

Verification: The project owner/operator shall make the site available for inspection to the District, California Air Resources Board (CARB), and Commission staff.

AQ-26 Project owner shall submit to the District and the Energy Commission ERC option contracts or final signed contracts for the project's ERC liability, except for PM10, as listed in condition AQ-4~~2~~21 prior to the Energy Commission's Final Decision on the project. ~~(FRAQMD General ATC Permit Condition t).~~

Verification: At least 10 days prior to the Commission adoption of the final decision on the project, the Project owner shall have provided copies of all option contracts or signed contracts required by this Condition.

AQ-27 Calpine has produced evidence indicating that it has an enforceable right to ERCs located in another District. These ERCs cannot be used until the District Board adopts an approving resolution and enters into an MOU with the other District. The District intends to act on the resolution and MOU as soon as practicable after CEC completes an environmental analysis document and the criteria in Section 15253, Subdivision (b) of the CEQA Guidelines are met. ~~(FRAQMD General ATC Permit Condition v.)~~

Verification: At least 30 days prior to the start of construction, Project owner shall provide a copy of the signed MOU to the CPM.

AQ-28 Project owner may substitute interpollutant offsets of VOCs (ROCs) for NOx at a 2.0 to 1.0 interpollutant offset ratio pursuant to Rule 10.1, Section E.2, d. ~~(FRAQMD General ATC Permit Condition w).~~

Verification: The project owner shall submit to the District and the CPM a copy of the offsets calculations that satisfy AQ-4~~2~~1 if it chooses to use the interpollutant substitution offset ratio specified in this Condition.

AQ-29 The facility shall exclusively use California PUC pipeline quality natural gas as fuel. The fuel gas total sulfur and heat content will be determined and reported to the District by collecting and analyzing a sample on a monthly basis or by providing monthly certification of the natural gas total sulfur and/or heat content issued by the natural gas distributor. ~~(FRAQMD General ATC Permit Condition x).~~

Verification: As part of the ~~semi-annual~~quarterly Air Quality Report (as required by AQ-4~~3~~0), the project owner shall submit to the District and CPM a copy of the natural gas analysis or certification issued by the natural gas distributor to satisfy this Condition.

AQ-30 All basic and control equipment is to be operated and maintained in accordance with vendors' recommended practices and procedures. ~~(FRAQMD General ATC Permit Condition y).~~

Verification: Refer to AQ-14 verification.

AQ-31 The maximum heat input allowed to each ~~permitted internal and external combustion emissions unit~~ gas turbine and duct burner, expressed in MMBtu units on a High Heating Value basis (HHV), shall not exceed the limits indicated in the table below: ~~(FRAQMD specific ATC Permit Condition a).~~

Emission Unit	MMBtu/hour	MMBtu/day (1)	MMBtu/year (2)
CTG-1	1,900	45,600	16,644,000
CTG-2	1,900	45,600	16,644,000
Duct Burner-1	170	4,080	928,200
Duct Burner-2	170	4,080	928,200
(1) Based on 24 hour-day (2) Based on 365 days/year			

Verification: As part of the ~~semi-annual~~quarterly Air Quality Reports (as required by AQ-4~~3~~0), the project owner shall document the date and time when the hourly fuel consumption exceeds the hourly limits included in this Condition. The reports shall include a summary of hourly and daily fuel consumption in MMBtu [high heating value (HHV)] for all the cases indicated in the table above. The January Air Quality Report shall also include information on the amount of fuel consumed, in MMBtu (HHV), in the prior calendar year.

AQ-32 The following definitions and limitations shall apply: ~~(FRAQMD specific ATC Permit Condition b).~~

(1) CTG startups are defined as the time period commencing with the introduction of fuel flow to the gas turbine and ending at the start of the first hour period when the NOx concentrations do not exceed 2.5 ppmvd at 15% O_2 averaged over 1-hour and the CO concentrations do not exceed 4.0 ppm at 15% O_2 averaged over 1 hour.

(2) For each CTG, a startup shall not exceed ~~180~~360 consecutive minutes.

(3) Shutdowns are defined as the time period commencing with a 15 minute period during which the 15 minute average NOx concentrations exceed 2.5 ppmvd at 15% O2 or the 15 minute average CO concentration exceeds 4.0 ppm at 15% O_2 and ending when the fuel flow to the gas turbine is discontinued.

(4) For each CTG, a shutdown shall not exceed 60 consecutive minutes.

(5) The maximum duration of startups per CTG shall be 400 hours per year and 102 hours per calendar quarter.

(6) The maximum duration of shutdowns per CTG shall be 300 hours per year, and 76 hours per calendar quarter.

(7) Compliance with the above yearly limits shall be calculated based on a rolling 12-month average.

(8) All emissions during startups and shutdowns shall be included in all calculations of daily, quarterly and annual mass emissions required by this permit.

(9) For each ~~CTG the maximum number of~~ Duct Burner the total hours of combusting fuel ~~hours of operation~~ shall not exceed 5,460 per calendar year.

(10) For each CTG the ~~maximum number~~ total hours of Power Augmentation Steam Injection ~~hours~~ shall not exceed 2,000 hours per calendar year.

(11) ~~For each CTG t~~The maximum hourly emissions from each gas turbine/duct burner ~~rates (lbs/hr)~~ are given in the table below and shall be averaged over a~~ny~~ rolling three hour period, except for the NOx emissions, and all hourly startup emission rates, which ~~will~~shall be averaged over a one hour period. ~~The emission limits in the Total Startup column are shown as pounds per startup:~~Additionally excepting the total emissions per startup and total emissions per shutdown which are not averaged over any time frame.

~~Pollutant~~	~~CTG~~	~~CTG+ Duct Burner~~	~~CTG+ Duct Burner + Steam Injection~~	~~CTG+ Steam Injection~~	~~Startup~~	~~Total Startup lbs/event~~	~~Shutdown~~
~~NOx~~	~~16.8~~	~~18.2~~	~~19.1~~	~~17.7~~	~~175~~	~~510~~	~~12.1~~
~~CO~~	~~16.7~~	~~20.1~~	~~34.3~~	~~30.9~~	~~902~~	~~2514~~	~~12.6~~
~~VOC~~	~~1.5~~	~~3.5~~	~~3.51~~	~~1.51~~	~~1.5~~	~~4.5~~	~~1.1~~
~~SO2~~	~~3.7~~	~~3.71~~	~~4.02~~	~~4.01~~	~~3.7~~	~~8.1~~	~~2.7~~
~~PM10~~	~~9.0~~	~~11.5~~	~~11.5~~	~~9.0~~	~~9.0~~	~~27~~	~~9.0~~

Pollutant	Maximum Allowable Hourly Emissions from Each Gas Turbine/Duct Burner (lb/hour)			
	In all modes of operation except startup and shutdown (lb/hour)	Start Up (lb/hour)	Start Up (lb/startup)	Shut Down (lb/shutdown)
NOx	19.1 (1 hour average)	175	680	80
CO	34.3 (3 hour average)	902	2514	100
VOC	3.51 (3 hour average)	16	59	16
SO_2	4.02 (3 hour average)	3.7	22.2	3.7
PM_{10}	11.5 (3 hour average)	9	54	9

(12) For maximum project daily emissions (lbs/day) are given in the table below:

	~~Total Emissions per CTG~~	~~Calpine Maximum SPP Daily Emissions~~
~~NOx~~	~~909~~	~~1817~~
~~CO~~	~~3264~~	~~6528~~
~~VOC~~	~~79~~	~~158~~
~~SO2~~	~~90~~	~~179~~
~~PM10~~	~~271~~	~~541~~

Pollutant	Maximum Allowable Daily Emissions from the Facility (A) (lb/day)
NOx	1,817
CO	6,528
VOC	158
SO_2	179
PM_{10}	541

(A) Includes both combustion turbines and both duct burners

(13) The maximum quarterly emissions for the facility are given in the table below:

	~~January-March lbs/quarter~~	~~April-June lbs/quarter~~	~~July-September lbs/quarter~~	~~October-December lbs/quarter~~
~~NOx~~	~~102,500~~	~~102,500~~	~~102,500~~	~~102,500~~
~~CO~~	~~241,600~~	~~241,600~~	~~241,600~~	~~241,600~~

~~VOC~~	~~11,850~~	~~11,850~~	~~11,850~~	~~11,850~~
~~SO2~~	~~15,750~~	~~15,750~~	~~15,750~~	~~15,750~~
~~PM10~~	~~46,200~~	~~46,200~~	~~46,200~~	~~46,200~~

Pollutant	Maximum Allowable Quarterly Emissions from the Facility (A)			
	January-March (lb/quarter)	April-June (lb/quarter)	July-September (lb/quarter)	October-December (lb/quarter)
NOx	102,500	102,500	102,500	102,500
CO	241,600	241,600	241,600	241,600
VOC	11,850	11,850	11,850	11,850
SO_2	15,750	15,750	15,750	15,750
PM_{10}	46,200	46,200	46,200	46,200

(A) Includes both combustion turbines and both duct burners

(14) The maximum annual calendar year emissions (tons/year) for the facility are given in the table below:

	~~Total Emissions per CTG~~	~~Calpine Annual SPP Emissions~~
~~NOx~~	~~102~~	~~205.86~~
~~CO~~	~~242~~	~~483.18~~
~~VOC~~	~~11.9~~	~~24.41~~
~~SO2~~	~~15.7~~	~~31.5~~
~~PM10~~	~~43.2~~	~~92.5~~

Pollutant	Maximum Allowable Calendar Year Emissions from the Facility (A) (tons/year)
NOx	205.0
CO	483.2
VOC	23.7
SO_2	31.5
PM_{10}	92.4

(A) Includes both combustion turbines and both duct burners

Verification: As part of the ~~semi-annual~~quarterly Air Quality Report (as required by AQ-4~~3~~0), the project owner shall provide all data required in this Condition. In the ~~semi-annual~~quarterly Air Quality Reports (as required by AQ-4~~3~~0), the project owner shall indicate the date, time, and duration of any violation to the NOx, and VOC limits presented in this Condition. The project owner shall include in the ~~semi-annual~~quarterly Air Quality Reports (as required by AQ-4~~3~~0) daily and annual emissions as required in this Condition.

AQ-33 BACT Emission Limits:

The BACT emission limits (including duct burner emissions) specified in Conditions (a), (b), (c), (d), and (e) apply ~~under all operating load rates~~ at all times, except during CTG startups and shutdowns, as defined in Condition AQ-3~~3~~2. ~~(FRAQMD specific ATC Permit Condition c).~~

(a) NOx emission concentrations shall be limited to 2.5 ppmvd @ 15% O2 on a 1 hour ~~rolling~~ average, clock hour basis ~~(based on readings taken at 15 minute intervals) and with a maximum of 10 ppmvd ammonia slip~~.

(b) CO emission concentrations shall be limited to 4.0 ppmvd @ 15% O2, on a ~~calendar day~~ 3-hour average, clock hour basis.

(c) VOC emission concentrations shall be limited to 1 ppmvd @ 15% O2, on a ~~calendar day~~3-hour average, clock hour basis.

(d) PM10 emissions shall be limited to 11.5 pounds per hour, on a ~~calendar day~~ 3-hour average, clock hour basis.

(e) SO2 emission concentrations shall be limited to 1 ppmvd @ 15% O2, on a ~~calendar day~~3-hour average, clock hour basis.

Verification: At least sixty (60) days before conducting a source test, the project owner shall submit to the District, EPA and the CPM for their review and approval, a source test plan. ~~detailed performance annual source test procedure designed to satisfy the requirements of this Condition. The project owner shall incorporate the District's and Commission's comments on or modifications to the procedure if any are received.~~ The project owner shall ~~also~~ notify the District and the CPM within seven (7) working days before the project begins initial operation and/or plans to conduct a source test~~s as required by this Condition~~. All source test results shall be submitted to the CPM and District within ~~30~~60 days of the date of the tests.

AQ-34 ~~Each CTG set exhaust vent stack shall be equipped with NOx and % oxygen (O2) CEMs in order to analyze and record exhaust gas flow rate and concentrations. CO, PM10, SO2, and VOC emissions shall be monitored by the CEMs, using source test derived algorithms as indicated in AQ-36 below. In the event that test results show that CO emission limits are exceeded, the APCO may require CEMs for recording concentrations of CO.~~

Prior to the date of startup and thereafter, the project owner shall install, maintain, and operate the following CEM systems in each CTG exhaust vent stack:

(1) A continuous monitoring system to measure stack gas NOx concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 75);

(2) A continuous monitoring system to measure stack gas CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B);

(3) A continuous monitoring system to measure stack gas O2 concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 75).

PM10, SO2, and VOC emissions shall be monitored by source test derived algorithms.

(a) The NOx CEMs shall have the capability of recording NOx concentrations during all operating conditions, including startups and shutdowns.

(b) The CO CEMs shall have the capability of recording CO concentrations during all operating conditions, including startups and shutdowns.

(~~b~~c) Relative accuracy (RA) testing for NOx and O2 shall be performed on the CEM~~s~~S ~~on a semi-annual basis or~~ as required by ~~the Acid Rain permit provisions in Title~~ 40, CFR, Part 75, Appendix B. RA testing for CO shall be performed as required by 40 CFR Part 60, Appendix F. ~~(FRAQMD specific ATC Permit Condition d).~~

Verification: At least one hundred and twenty (120) days before initial operation, the project owner shall submit to the District and the CPM a continuous emissions monitoring procedure. Within sixty (60) days of receipt of the procedure, the District and the CPM will advise the project owner of the acceptability of the procedure. ~~Based on the results of the source test identified in AQ-36, the District and CPM may require CEMs for recording concentrations of CO.~~

AQ-35 Within ninety days after the start of commercial operation of the SPP, source testing shall be performed to determine the mass emission rates and concentrations of NOx, CO, VOC, and SO2 emissions at four different steadystate CTG load rates over the expected operating range of either combustion turbine, as required by 40 CFR 60.335.c (2). The source testing will be used to determine compliance with the permitted emission limits indicated in Specific ATC Permit Conditions AQ-3~~3~~2 and AQ-3~~4~~3. Source testing shall be conducted to determine PM10 mass emissions and concentrations while the CTG is operating at 100 percent load with and without the duct burners, firing at the maximum rated capacity or 170 MMBtu/hr (HHV), whichever is greater.

(a) ~~The s~~Source testing results shall be used to develop predictive emission algorithms to estimate mass emission rates for ~~CO,~~ VOC, and SO2, and PM10 emissions.

(b) Source testing to determine the mass emission rates and concentrations of NOx shall be conducted annually after the initial source test indicated in a) above.

(c) Source testing to determine the mass emission rates and concentrations of CO, VOC, SO2 and PM10 shall be conducted annually. Startup source tests for VOC shall be conducted once every seven years, beginning in the 2003 calendar year. The Air Pollution Control Officer and the CPM may waive annual source testing requirements if prior test results indicate an adequate compliance margin has been maintained. ~~(FRAQMD specific ATC Permit Condition e).~~

Verification: At least sixty (60) days before ~~the start of commercial operation of the project, the project owner shall submit to the District and the CPM for review a detailed performance test procedure necessary to comply with this Condition. The project owner shall incorporate the District and CPM's comments on or modifications to the procedure. At least sixty (60) days prior to any subsequent annual compliance source tests, the project owner shall submit to the District and the CPM for review any proposed changes to the original source test procedure. The project owner shall incorporate the District's and CPM's comments on or modifications to the annual source test procedure~~ conducting a source test, the project owner shall submit to the District, CPM, and EPA for their review and approval, a source test plan.. The project owner shall ~~also~~ notify the District and the CPM within seven (7) working days before the project ~~begins initial operation and/or~~ plans to conduct source testing ~~as required by this Condition~~. All s~~S~~ource test results shall be submitted to the District and the CPM within ~~30~~60 days of the date of the tests.

AQ-36 Source tests to determine ammonia slip shall be conducted within ninety days after commercial operation of the SPP and thereafter as required by the APCO and the CPM. ~~(FRAQMD specific ATC Permit Condition f).~~

Verification: Please refer to AQ-3~~6~~5 verification.

AQ-37 The maximum allowable ammonia emission rate ~~to~~from each of the SCR systems shall ~~be~~ not exceed 25 pounds per hour based on a 3-hour average under normal operating condition. Ammonia (slip) emissions shall not exceed 10 ppmvd at 15% O_2 based on a 3-hour average. ~~This injection rate may be adjusted based on source tests results. (FRAQMD specific ATC Permit Condition g).~~

Verification: Please refer to AQ-3~~4~~5 verification.

AQ-38 Within ninety days after beginning commercial operation of the SPP, startup, and shutdown source tests shall be conducted to determine the emissions of CO and NOx. The APCO and CPM may approve the use of the NOx CEMS readings in

lieu of source testing if annual Relative Accuracy Testing Audits (RATA) testing is provided. ~~(FRAQMD specific ATC Permit Condition h).~~

Verification: Within ninety days after the start of commercial operation of the project, the project owner shall submit to the District and the CPM for review a detailed performance source test procedure designed to satisfy the requirements of this Condition. The project owner shall incorporate the District's and Commission's comments on or modifications to the procedure. The project owner shall also notify the District and the CPM within seven (7) working days before the project begins commercial operation and/or plans to conduct source test as required by this Condition. Source test results shall be submitted to the District within 30 days of the date of the tests.

AQ-39 Records and logs of all data generated by CEMS and algorithms shall be maintained for a period of five (5) years~~. (FRAQMD specific ATC Permit Condition i).~~

Verification: During site inspection, the project owner shall make all data generated by the CEMS and algorithm, and included in the plant logs for a period of five years, available to the District, California Air Resources Board (CARB), and the Commission staff.

PLEASE NOTE THAT THIS CONDITION IS BASED ON A DISTRICT CONDITION (RECORD KEEPING AND REPORTING CONDITION NUMBER 46) THAT WAS MODIFIED AS SHOWN BELOW, WITH THE EXCEPTION OF THE BOLDED LANGUAGE WHICH HAS BEEN ADDED BY COMMISSION STAFF.

AQ-40 ~~The project owner shall provide calendar quarterly reports to the District in a format determined in consultation with the District. The calendar quarterly reports shall include the following: CEMS and predictive algorithm emissions data; CTG and duct burner fuel use and operating hours; power augmentation steam injection rates and hours of operation; ammonia injection rates; emission control systems and CEMS hours of operation including the time, date, duration, and reason for any malfunctions of these systems; the number of startups and shutdowns; and the electrical and steam production rates. These data shall be averaged on a daily basis, except where required to demonstrate compliance with an emission limitation. (FRAQMD specific ATC Permit Condition j).~~

The project owner shall submit a written summary report to the District, CPM and U.S. EPA for every calendar quarter. The report shall include the following:

(1) The hourly and daily emissions for each gas turbine/duct burner.

(2) The facility-wide quarterly and yearly (fourth quarter report only) emissions.

(3) The magnitude of excess emissions, any conversion factors used and the date and time of commencement and completion of each time period of excess emissions.

(4) Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the emission control systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported.

(5) The date and time identifying each period during which the CEM system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(6) When no excess emissions have occurred or the CEM system has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(7) Gas turbine/duct burner hourly, daily and yearly (fourth quarter report only) fuel use in terms of mmBTU/hr (HHV).

(8) Gas turbine quarterly startup, shutdown and operating hours. Include duration of each startup and shutdown. Include rolling 12-month average for duration of startups and shutdowns. **Include an estimate of all emissions during startup and shutdown event (lbs/hour and lbs/event) based on the most recent source testing (include source test reference).**

(9) Duct burner quarterly operating hours

(10) Power augmentation steam injection rates and quarterly hours of operation.

(11) Ammonia injection rates.

(12) Electrical and steam production rates.

Verification: Within 30 days of the end of the calendar quarter, the project owner shall provide to the District and CPM the data required in this Condition.

AQ-41 Prior to the start of construction, the SPP facility must provide ERC certificates for NOx, ROC, and PM10, as indicated in the table below. The ERC sources are Atlantic Oil Company, Ranch A, Ranch B, Ranch C, Ranch D, Ranch E, Spreckles Sugar Company, Tri Union, and Rosboro Lumber. Alternative sources of offsets may be used if they meet the criteria applied to these sources and are approved by the District and CPM. (FRAQMD specific ATC Permit Condition k).

Verification: At least 30 days prior to the start of construction, the project owner must submit a copy of the required ERC certificates to the CPM and the District.

AQ-42 The project owner must file a semi-annual air quality report with the CPM documenting the information required by these conditions and verifications.

Verification: The semi-annual Air Quality report (as required by AQ-43) must be submitted to the CPM within 30 days of the end of the 6 month reporting period.

	January-March (pounds)	April-June (pounds)	July-September (pounds)	October-December (pounds)	Total ERCs & Offsets	
					Total Pounds	Total Tons

~~Required NOx~~	~~106,950~~	~~106,950~~	~~106,950~~	~~106,950~~	~~427,800~~	~~213.9~~
~~Required VOC~~	~~69,300~~	~~69,300~~	~~69,300~~	~~69,300~~	~~277,200~~	~~138.6~~
~~Required PM10~~	~~66,000~~	~~66,000~~	~~66,000~~	~~66,000~~	~~264,000~~	~~132.0~~
~~These ERCs have not been discounted to reflect the appropriate offset distance ratio calculations.~~						

AQ-41 The following VOC ERCs have been provided to the Air Pollution Control Officer to comply with the requirements of Rule 10.1 - New Source Review:

Emission Reduction Credit Certificate No.	Face Value of VOC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project VOC Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98001-01P Bio Fuel	4522	4582	2521	5054	NA	1.2	3768	3818	2100	4211
98001-02P Bio Fuel	0	0	4413	0	NA	1.2	0	0	3677	0
98002-00P Bio Fuel	2512	1625	7286	2807	NA	1.2	2093	1354	6071	2339
98003-00P Bio Fuel	3320	4826	3	5711	NA	1.2	2766	4021	2	4759
98005-00P Bio Fuel	2814	1821	0	650	NA	1.2	2345	1517	0	541
98010-00P Bio Fuel	581	376	0	0	NA	1.2	484	313	0	0
98012-00P Bio Fuel	0	993	0	0	NA	1.2	0	827	0	0
94-1-00P Rosboro	473	0	0	0	NA	1.2	394	0	0	0
						Total	11850	11850	11850	11850

The following NOx ERCs (or inter-pollutant traded VOC ERCs as noted) have been provided to the Air Pollution Control Officer to comply with the requirements of Rule 10.1 - New Source Review:

Emission Reduction Credit Certificate No.	Face Value of NOx/VOC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98001-01P NOx Bio Fuel	3798	3282	1528	4245	NA	1.2	3165	2735	1273	3537
98001-02P NOx Bio Fuel	0	0	2697	0	NA	1.2	0	0	2247	0
98002-00P NOx Bio Fuel	2110	1365	5094	2358	NA	1.2	1758	1137	4245	1965

Emission Reduction Credit Certificate No.	Face Value of NOx/VOC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98002-00P VOC Bio Fuel **INTER-POLLUTANT**	0	0	884	0	2.0	1.2	0	0	368	0
98003-00P NOx Bio Fuel	6265	4054	1106	7002	NA	1.2	5220	3378	921	5835
98003-00P VOC Bio Fuel **INTER-POLLUTANT**	4138	0	1313	0	2.0	1.2	1724	0	547	0
98005-00P NOx Bio Fuel	2364	1529	417	2642	NA	1.2	1970	1274	347	2201
98005-00P VOC Bio Fuel **INTER-POLLUTANT**	0	0	497	0	2.0	1.2	0	0	207	0
98010-00P NOx Bio Fuel	488	316	86	546	NA	1.2	406	263	71	455
98010-00P VOC Bio Fuel **INTER-POLLUTANT**	0	0	103	0	2.0	1.2	0	0	42	0
98012-00P NOx Bio Fuel	3249	2103	573	3632	NA	1.2	2707	1752	477	3026
98012-00P VOC Bio Fuel **INTER-POLLUTANT**	3868	0	683	0	2.0	1.2	1611	0	284	0
98021-00P NOx Bio Fuel	1726	1117	305	1929	NA	1.2	1438	930	254	1607
98021-00P VOC Bio Fuel **INTER-POLLUTANT**	2054	0	363	0	2.0	1.2	855	0	151	0
98022-00P NOx Bio Fuel	3249	2103	573	3632	NA	1.2	2707	1752	477	3026
98022-00P VOC Bio Fuel **INTER-POLLUTANT**	3868	0	683	0	2.0	1.2	1611	0	284	0
98023-00P NOx Bio Fuel	3249	2103	573	3632	NA	1.2	2707	1752	477	3026
98023-00P VOC Bio Fuel **INTER-POLLUTANT**	3868	0	683	0	2.0	1.2	1611	0	284	0
98024-00P NOx Bio Fuel	3249	2103	573	3632	NA	1.2	2707	1752	477	3026
98024-00P VOC Bio Fuel **INTER-POLLUTANT**	3868	0	683	0	2.0	1.2	1611	0	284	0
98025-00P NOx Bio Fuel	3249	2103	573	3632	NA	1.2	2707	1752	477	3026
98025-00P VOC Bio Fuel **INTER-POLLUTANT**	3868	0	683	0	2.0	1.2	1611	0	284	0
98027-00P NOx Bio Fuel	912	590	161	1019	NA	1.2	760	491	134	849

Emission Reduction Credit Certificate No.	Face Value of NOx/VOC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98027-00P VOC Bio Fuel **INTER-POLLUTANT**	1085	0	192	0	2.0	1.2	452	0	80	0
98028-00P NOx Bio Fuel	1452	940	256	1623	NA	1.2	1210	783	213	1352
98028-00P VOC Bio Fuel **INTER-POLLUTANT**	483	0	305	0	2.0	1.2	201	0	127	0
06-5-99-1 NOx Tri Union	6280	6280	6280	6280	NA	1.2	5233	5233	5233	5233
06-5-99-1 VOC Tri Union **INTER-POLLUTANT**	0	0	140	0	2.0	1.2	0	0	58	0
98-101-00P NOx Tri Union	3334	3371	3408	3408	NA	1.2	2778	2809	2840	2840
992024-00P NOx Tri Union	16986	16986	16986	16986	NA	1.2	14155	14155	14155	14155
992024-00P VOC Tri Union **INTER-POLLUTANT**	0	0	261	0	2.0	1.2	0	0	108	0
95-1-00P NOx Atlantic Oil	10955	10955	10955	10955	NA	1.2	9129	9129	9129	9129
95-1-00P VOC Atlantic Oil **INTER-POLLUTANT**	0	0	2526	0	2.0	1.2	0	0	1052	0
9902005-00P NOx Atlantic Oil	5683	5683	5683	5683	NA	1.2	4735	4735	4735	4735
9902005-00P VOC Atlantic Oil **INTER-POLLUTANT**	0	0	53	0	2.0	1.2	0	0	22	0
9902029-00P NOx Atlantic Oil	3648	3648	3648	3648	NA	1.2	3040	3040	3040	3040
9902029-00P VOC Atlantic Oil **INTER-POLLUTANT**	0	0	39	0	2.0	1.2	0	0	16	0
9902030-00P NOx Atlantic Oil	4536	4536	4536	4536	NA	1.2	3780	3780	3780	3780
9902030-00P VOC Atlantic Oil **INTER-POLLUTANT**	0	0	65	0	2.0	1.2	0	0	27	0
94-1-00P NOx Rosboro	21134	21134	21134	18850	NA	1.2	17611	17611	17611	15708
94-1-00P VOC Rosboro **INTER-POLLUTANT**	1760	0	1920	0	2.0	1.2	733	0	800	0
EC-0002 Spreckles YSAQMD	0	0	24000	0	NA	1.5	0	0	16000	0
EC-0058 Spreckles YSAQMD	103	3632	0	0	NA	1.5	68	2421	0	0

Emission Reduction Credit Certificate No.	Face Value of NOx/VOC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
EC-0059 Spreckles YSAQMD	279	23107	1205	8646	NA	1.5	186	15404	803	5764
EC-0060 Spreckles YSAQMD	328	6649	8698	7778	NA	1.5	218	4432	5798	5185
EC-0061 Spreckles YSAQMD	128	0	3392	0	NA	1.5	85	0	2261	0
						Total	102500	102500	102500	102500

The following PM_{10} ERCs have been provided to the Air Pollution Control Officer to comply with the requirements of Rule 10.1 - New Source Review:

Emission Reduction Credit Certificate No.	Face Value of PM10 ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project PM10 Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98001-01P Bio Fuel	5087	5683	3387	5685	NA	1.2	4239	4735	2822	4737
98001-02P Bio Fuel	0	0	5884	0	NA	1.2	0	0	4903	0
98002-00P Bio Fuel	2826	1828	10801	3158	NA	1.2	2355	1523	9000	2631
98003-00P Bio Fuel	8390	5429	1481	9378	NA	1.2	6991	4524	1234	7815
98005-00P Bio Fuel	3166	2048	559	3538	NA	1.2	2638	1706	465	2948
98010-00P Bio Fuel	654	423	115	731	NA	1.2	545	352	95	609
98012-00P Bio Fuel	4352	2816	768	4864	NA	1.2	3626	2346	640	4053
98021-00P Bio Fuel	2311	1495	408	2583	NA	1.2	1925	1245	340	2152
98022-00P Bio Fuel	4352	2816	768	4864	NA	1.2	3626	2346	640	4053
98023-00P Bio Fuel	4352	2816	768	4864	NA	1.2	3626	2346	640	4053
98024-00P Bio Fuel	4352	2816	768	4864	NA	1.2	3626	2346	640	4053
98025-00P Bio Fuel	4352	2816	768	4864	NA	1.2	3626	2346	640	4053
98027-00P Bio Fuel	1221	790	215	1365	NA	1.2	1017	658	179	1137
98028-00P Bio Fuel	1945	1258	343	2174	NA	1.2	1620	1048	285	1811
06-5-99-1 Tri Union	31	31	31	31	NA	1.2	25	25	25	25

Emission Reduction Credit Certificate No.	Face Value of PM10 ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project PM10 Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
94-1-00P Rosboro	8058	14638	13561	2484	NA	1.2	6715	12198	11300	2070
EC-0060 Spreckles YSAQMD	0	9684	18528	0	NA	1.5	0	6456	12352	0
						Total	46200	46200	46200	46200

Verification: At least 30 days prior to the start of construction, the project owner must submit a copy of the required ERC certificates to the CPM and the District.

IT IS SO ORDERED:

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

Original Signed By

Date: June 11, 2003

WILLIAM J. KEESE
Chairman